



SEQUENCE LISTING

<110> Commonwealth Scientific and Industrial Research
Organisation
Dall, David J.

<120> Plants and Feed Baits for Controlling Damage from Feeding Insects

<130> 050179-0096

<140> 09/936,216
<141> 2002-01-23

<150> PCT/AU00/00181
<151> 2000-03-10

<150> PP9113
<151> 1999-03-10

<160> 18

<170> PatentIn version 3.2

<210> 1
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: conserved sequence of fusolin
proteins

<400> 1

Val Arg Trp Gln Arg
1 5

<210> 2
<211> 13
<212> PRT
<213> Dermolepida albohirtum entomopoxvirus and Melolontha melolontha
entomopoxvirus

<400> 2

His Gly Tyr Ile Thr Phe Pro Ile Ala Arg Gln Arg Arg
1 5 10

<210> 3
<211> 13
<212> PRT
<213> Anomala cuprea entomopoxvirus

<400> 3

His Gly Tyr Val Thr Phe Pro Ile Ala Arg Gln Arg Arg
1 5 10

<210> 4

<211> 13

<212> PRT

<213> Choristoneura biennis entomopoxvirus, Helicoverpa armigera entomopoxvirus
and Pseudaletia separata entomopoxvirus

<400> 4

His Gly Tyr Met Thr Phe Pro Ile Ala Arg Gln Arg Arg
1 5 10

<210> 5

<211> 13

<212> PRT

<213> Bombyx mori nuclear polyhedrosis virus

<400> 5

His Gly Tyr Leu Ser Leu Pro Thr Ala Arg Gln Tyr Lys
1 5 10

<210> 6

<211> 13

<212> PRT

<213> Choristoneural fumiferana nuclear polyhedrosis virus

<400> 6

His Gly Tyr Leu Ser Val Pro Val Ala Arg Gln Tyr Lys
1 5 10

<210> 7

<211> 13

<212> PRT

<213> Mamestra brassica nuclear polyhedrosis virus

<400> 7

His Gly Tyr Leu Ser Tyr Pro Val Ala Arg Gln Tyr Lys
1 5 10

<210> 8

<211> 13

<212> PRT

<213> Xestria c-nigrum GV

<400> 8

His Gly Phe Met Leu Tyr Pro Leu Ala Arg Gln Tyr Arg

1

5

10

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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer

<220>
<221> misc_feature
<222> (3)..(3)
<223> y = c or t

<220>
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<223> w = a or t

<220>
<221> misc_feature
<222> (12)..(12)
<223> r = a or g

<220>
<221> misc_feature
<222> (15)..(15)
<223> n = a, t, c or g

<400> 9
cayggwtata trcantttcc tatagc

26

<210> 10
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer

<220>
<221> misc_feature
<222> (4)..(4)
<223> r = a or g

<220>
<221> misc_feature
<222> (7)..(7)
<223> r = a or g

<220>
<221> misc_feature

<222> (10)..(10)
<223> r = a or g

<220>
<221> misc_feature
<222> (13)..(13)
<223> w = a or t

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<221> misc_feature
<222> (19)..(19)
<223> w = a or t

<220>
<221> misc_feature
<222> (22)..(22)
<223> y = c or t

<400> 10
acartttrtar aawccttcwc cyac

24

<210> 11
<211> 220
<212> PRT
<213> Dermolepida albohirtum entomopoxvirus

<400> 11

His Gly Tyr Ile Thr Phe Pro Ile Ala Arg Gln Arg Arg Cys Asn Val
1 5 10 15

Gln Gly Gly Phe Trp Trp Pro Thr Asp Gly Ser Ala Ile Pro Asp Pro
20 25 30

Met Cys Arg Ala Ala Tyr Gln Asn Val Phe Asn Thr Val Leu Gln Gln
35 40 45

Gly Gly Ser Leu Asn Gln Ala Ala Thr Ala Ala Gln Tyr Met Phe Gln
50 55 60

Gln Asp Asn Glu Tyr Ala Ala Leu Ala Gly Ser Asn Phe Arg Asp Leu
65 70 75 80

Asn His Ile Gln Asn Asn Val Val Pro Phe Asp Leu Cys Ala Ala Gly
85 90 95

Ala Asn Asn Trp Arg Arg Val Pro Phe Gly Asp Lys Ser Gly Met Asp
100 105 110

Ile Ser Gly Ser Trp Thr Pro Thr Gly Ile Pro Leu Glu Ser Asn Thr
 115 120 125

Val Gly Thr Gly Pro Ile Glu Phe Glu Phe Cys Pro Thr Ala Ile His
 130 135 140

Glu Pro Ser Phe Phe Glu Ile Tyr Ile Thr Val Pro Asn Phe Asn Val
 145 150 155 160

Phe Thr Asp Gln Val Thr Trp Ser Gln Leu Glu Asn Ile Phe Thr Gly
 165 170 175

Pro Ile Pro Leu Val Ala Arg Arg Pro Asp Ser Leu Cys Asn Ala Asn
 180 185 190

Ser Arg Val Tyr Arg Ile Thr Val Gly Ile Pro Met Arg Gln Thr Gln
 195 200 205

Phe Val Leu Tyr Val Arg Trp Gln Arg Ile Asp Pro
 210 215 220

<210> 12
 <211> 220
 <212> PRT
 <213> Melolontha melolontha entomopoxvirus

<400> 12

His Gly Tyr Ile Thr Phe Pro Ile Ala Arg Gln Arg Arg Cys Asn Val
 1 5 10 15

Gln Gly Gly Phe Trp Trp Pro Pro Gly Gly Ser Gly Ile Pro Asp Pro
 20 25 30

Met Cys Arg Ala Ala Tyr Gln Asn Val Tyr Asn Lys Val Leu Gln Gln
 35 40 45

Gly Gly Thr Ile Asp Gln Ala Ala Ser Ala Ala Gln Tyr Met Phe Gln
 50 55 60

Gln Asp Asn Glu Tyr Ala Ala Leu Ala Gly Pro Asn Tyr Leu Asp Gln
 65 70 75 80

Asn His Ile Arg Asn Asn Val Val Pro Asn Tyr Leu Cys Ala Ala His
 85 90 95

Ala Thr Thr Trp Arg Ile Arg Pro Phe Gly Asp Lys Thr Gly Met Asp
100 105 110

Val Ser Gly Ser Trp Thr Pro Thr Val Ile Pro Leu Gln Asp Asn Thr
115 120 125

Val Ser Thr Val Pro Ile Glu Phe Glu Phe Cys Pro Thr Ala Ile His
130 135 140

Glu Pro Ser Phe Phe Glu Ile Tyr Ile Thr Val Pro Ser Phe Asn Val
145 150 155 160

Tyr Thr Asp Gln Val Thr Trp Gln Gln Leu Ile Asn Ile Phe Thr Gly
165 170 175

Pro Ile Pro Leu Val Gln Arg Arg Pro Asp Ser Gln Cys Asn Ala His
180 185 190

Asn Leu Val Tyr Arg Thr Thr Val Gly Ile Pro Val Arg Gln Thr Gln
195 200 205

Phe Val Leu Tyr Val Arg Trp Gln Arg Asn Asp Pro
210 215 220

<210> 13
<211> 220
<212> PRT
<213> Anomala cuprea entomopoxvirus

<400> 13

His Gly Tyr Val Thr Phe Pro Ile Ala Arg Gln Arg Arg Cys Asn Val
1 5 10 15

Gln Gly Gly Phe Trp Trp Pro Pro Glu Gly Thr Asn Ile Pro Asp Pro
20 25 30

Met Cys Arg Ala Ala Tyr Gln Tyr Val Phe Asn Lys Val Leu Ser Glu
35 40 45

Gly Gly Ser Thr Ser Gln Ala Ala Ser Ala Ala Gln Tyr Met Phe Gln
50 55 60

Gln Asp Asn Glu Tyr Ala Ala Leu Ala Gly Pro Asn Phe Arg Asp Ile
65 70 75 80

Cys Trp Ile Lys Glu Gln Val Val Pro Asp Tyr Leu Cys Ala Ala Gly
85 90 95

Ala Asp Thr Trp Arg Ile Arg Pro Phe Gly Asp Lys Thr Gly Met Asp
100 105 110

Ile Val Gly Ser Trp Pro Pro Thr Val Ile Pro Leu Glu Asn Asn Phe
115 120 125

Val Asn Thr Ile Pro Ile Glu Leu Glu Phe Cys Pro Thr Ala Ile His
130 135 140

Glu Pro Ser Tyr Phe Glu Val Tyr Val Thr Thr Pro Glu Phe Asn Val
145 150 155 160

Tyr Arg Asp Lys Val Thr Trp Pro Leu Leu Glu Leu Val Phe Asn Ser
165 170 175

Thr Val Pro Leu Val Asn Arg Arg Ala Asp Ser Leu Cys Thr Ala Asn
180 185 190

Ala Arg Val Tyr Arg Met Ile Val Pro Val Pro Tyr Arg Gln Thr Gln
195 200 205

Phe Val Ile Tyr Val Arg Trp Gln Arg Ile Asp Pro
210 215 220

<210> 14
<211> 221
<212> PRT
<213> Choristoneura biennis entomopoxvirus

<400> 14

His Gly Tyr Met Thr Phe Pro Ile Ala Arg Gln Arg Arg Cys Ser Ala
1 5 10 15

Ala Gly Gly Asn Trp Tyr Pro Val Gly Gly Gly Gly Ile Gln Asp Pro
20 25 30

Met Cys Arg Ala Ala Tyr Gln Asn Val Phe Asn Lys Val Leu Asn Ser
35 40 45

Asn Gly Gly Asp Val Ile Asp Ala Ser Glu Ala Ala Asn Tyr Met Tyr
50 55 60

Thr Gln Asp Asn Glu Tyr Ala Ala Leu Ala Gly Pro Asp Tyr Thr Asn
65 70 75 80

Ile Cys His Ile Gln Gln Arg Val Val Pro Ser Tyr Leu Cys Ala Ala
85 90 95

Gly Ala Ser Asp Trp Ser Ile Arg Pro Phe Gly Asp Lys Ser Gly Met
100 105 110

Asp Leu Pro Gly Ser Trp Thr Pro Thr Ile Ile Gln Leu Ser Asp Asn
115 120 125

Gln Gln Ser Asn Val Val Met Glu Leu Glu Phe Cys Pro Thr Ala Val
130 135 140

His Asp Pro Ser Tyr Tyr Glu Val Tyr Ile Thr Asn Pro Ser Phe Asn
145 150 155 160

Val Tyr Thr Asp Asn Val Val Trp Ala Asn Leu Asp Leu Ile Tyr Asn
165 170 175

Asn Thr Val Thr Leu Arg Pro Lys Leu Pro Glu Ser Thr Cys Ala Ala
180 185 190

Asn Ser Met Val Tyr Arg Phe Glu Val Ser Ile Pro Val Arg Pro Ser
195 200 205

Gln Phe Val Leu Tyr Val Arg Trp Gln Arg Ile Asp Pro
210 215 220

<210> 15
<211> 220
<212> PRT
<213> Helicoverpa armigera entomopoxvirus

<400> 15

His Gly Tyr Met Thr Phe Pro Ile Ala Arg Gln Arg Arg Cys Ser Val
1 5 10 15

Arg Gly Gly Gln Trp Trp Pro Pro Asn Gly Asp Gly Ile Thr Asp Thr
20 25 30

Met Cys Arg Ala Ala Tyr Gln Asn Val Tyr Asn Lys Val Leu Asn Gln
35 40 45

Tyr Asn Asp Pro Gln Glu Ala Ala Thr Ala Ala Gln Tyr Met Phe Gln
50 55 60

Gln Asp Asn Glu Tyr Ala Ala Leu Ala Gly Pro Asp Tyr Thr Asn Leu
65 70 75 80

Cys Asn Leu Gln Gln Asn Val Val Pro Asn Asn Leu Cys Ala Ala Gly
85 90 95

Ala Asp Asp Trp Asp Val Val Pro Phe Gly Asp Lys Ser Gly Met Asp
100 105 110

Leu Pro Gly Asn Trp Val Pro Thr Val Ile Pro Leu Asp Ser Asn His
115 120 125

Gln Ser Ser Val Ala Leu Glu Leu Glu Phe Cys Pro Thr Ala Val His
130 135 140

Asp Pro Ser Tyr Tyr Glu Val Tyr Ile Thr Asn Ser Gly Phe Asn Val
145 150 155 160

His Thr Asp Asn Val Val Trp Gly Asn Leu Glu Leu Ile Phe Asn Asp
165 170 175

Thr Val Pro Leu Arg Pro Lys Ser Ser Thr Ser Thr Cys Asn Ala Asn
180 185 190

Pro Asn Val Tyr Arg Phe Thr Val Ser Ile Pro Val Arg Pro Ala Gln
195 200 205

Phe Val Leu Tyr Val Arg Trp Gln Arg Ile Asp Pro
210 215 220

<210> 16
<211> 217
<212> PRT
<213> Bombyx mori nuclear polyhedrosis virus

<400> 16

His Gly Tyr Leu Ser Leu Pro Thr Ala Arg Gln Tyr Lys Cys Phe Lys
1 5 10 15

Gly Gly Asn Phe Tyr Trp Pro His Asn Gly Asp Lys Ile Pro Asp Ala
20 25 30

Ala Cys Arg Asn Ala Tyr Lys Ser Val Tyr Tyr Lys Tyr Arg Ala Leu
35 40 45

Asp Leu Glu Ser Gly Ala Ala Ala Ala Thr Ala Gln Tyr Met Phe Gln
50 55 60

Gln Tyr Met Glu Tyr Ala Ser Val Ala Gly Pro Asn Tyr Asp Asp Phe
65 70 75 80

Asp Leu Ile Lys Gln Arg Val Val Pro His Thr Leu Cys Gly Ala Gly
85 90 95

Ser Asn Asp Arg Asn Ser Val Phe Gly Asp Lys Ser Gly Met Asp Glu
100 105 110

Pro Phe Asn Asn Trp Lys Pro Asn Thr Leu Tyr Leu Asn Leu Tyr Gln
115 120 125

Pro Val Tyr Arg Met Asn Val His Phe Cys Pro Thr Ala Ile His Glu
130 135 140

Pro Ser Tyr Phe Glu Val Phe Ile Thr Lys Ser Asn Trp Asp Arg Arg
145 150 155 160

Asn Pro Ile Thr Trp Asn Glu Leu Glu Tyr Ile Gly Gly Asn Asp Ser
165 170 175

Asp Leu Ile Pro Asn Pro Gly Asp Pro Leu Cys Asp Asn Ser Leu Val
180 185 190

Tyr Ser Ile Pro Val Val Ile Pro Tyr Arg Ser Asn Gln Phe Val Met
195 200 205

Tyr Val Arg Trp Gln Arg Ile Asp Pro
210 215

<210> 17
<211> 217
<212> PRT
<213> Choristoneural fumiferana nuclear polyhedrosis virus

<400> 17

His Gly Tyr Leu Ser Val Pro Val Ala Arg Gln Tyr Lys Cys Phe Arg
1 5 10 15

Asp Gly Asn Phe Trp Trp Pro Asn Asn Gly Asp Asn Ile Pro Asp Glu
20 25 30

Ala Cys Arg Asn Ala Tyr Lys Lys Val Tyr Tyr Lys Tyr Arg Ala Ile
35 40 45

Asn Val Pro Ser Gln Glu Ala Ala Ser Ala Ala Gln Tyr Met Phe Gln
50 55 60

Gln Tyr Thr Glu Tyr Ala Ala Leu Ala Gly Pro Asn Tyr Leu Asp Phe
65 70 75 80

Asp Met Val Lys Arg Asp Val Val Pro His Thr Leu Cys Gly Ala Ala
85 90 95

Ser Asn Asp Arg Ala Ala Leu Phe Gly Asp Lys Ser Gly Met Asp Glu
100 105 110

Pro Phe Tyr Asn Trp Arg Pro Asp Val Leu Tyr Met Asn Arg Tyr Gln
115 120 125

Asn Ser Tyr Pro Met Asp Val His Phe Cys Pro Thr Ala Ile His Glu
130 135 140

Pro Ser Tyr Phe Glu Val Phe Val Thr Lys Ser Thr Trp Asp Arg Arg
145 150 155 160

Asn Pro Ile Thr Trp Asn Glu Leu Glu Tyr Ile Gly Gly Asn Asn Ser
165 170 175

Gly Leu Val Pro Asn Pro Gly Asp Pro Leu Cys Asp Ser Asn Gln Ile
180 185 190

Tyr Ser Ile Pro Val Ser Val Pro Tyr Arg Ser Gly Gln Phe Val Met

195

200

205

Tyr Val Arg Trp Gln Arg Ile Asp Pro
 210 215

<210> 18
 <211> 207
 <212> PRT
 <213> Xestria c-nigrum GV

<400> 18

His Gly Phe Met Leu Tyr Pro Leu Ala Arg Gln Tyr Arg Cys Tyr Ala
 1 5 10 15

Pro Gln Asp Phe Tyr Trp Pro Asp Asp Gly Ser Asn Ile Gln Asn Pro
 20 25 30

Ala Cys Lys Leu Ala Phe Gln His Val Tyr Arg Asn Ser Gly Ser Ala
 35 40 45

Ala Ala Gln Tyr Met Phe Val Gln Tyr Ala Glu Tyr Ala Ala Leu Ala
 50 55 60

Gly Ser Asn Tyr Asn Asp Met Gln His Ile Gln Gln Asp Val Val Pro
 65 70 75 80

Asn Phe Leu Cys Ser Ala Ala Ala Asp Asn Thr Ser Thr Pro Tyr Gly
 85 90 95

Asp Lys Ser Gly Ile Ser Leu Pro Ser Asp His Trp Gln Thr Thr Ile
 100 105 110

Ile Asn Asp Arg Gly His Thr Gln Leu Tyr Tyr Cys Pro Thr Val Pro
 115 120 125

His Asp Pro Ser Phe Phe Gln Val Phe Val Thr Lys Lys Asp Phe Asp
 130 135 140

Val Gly Thr Thr Ile Val Thr Trp Asn Asp Leu Glu Leu Val His Glu
 145 150 155 160

Gln Ser Ala Val Ile Val Pro Asn Ser Arg Thr Val Pro Asn Ser Glu
 165 170 175

Glu Cys Gly Ala Phe Val Tyr Ser Ile Asp Ala Thr Leu Pro Met Arg
180 185 190

Ser Lys Pro Phe Val Val Phe Val Arg Trp Gln Arg Glu Asp Pro
195 200 205